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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/796,016

03/10/2004

Francois Le Bourhis

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP

901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

SOROUGH, ALI

ART UNIT

PAPER NUMBER

1617

MAIL DATE

DELIVERY MODE

03/13/2012

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/796,016	LE BOURHIS ET AL.	
	Examiner	Art Unit	
	ALI SOROUGH	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1,4-9 and 14-32 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1,4-9 and 14-32 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/20/2010 has been entered.

Claim Status

Claims 1, 4-9, and 14-32 are pending.

Claims 2, 3, and 10-13 were previously cancelled.

Claims 1, 4-9, and 14-32 have been examined.

Claims 1, 4-9, and 14-32 are rejected.

Priority

Priority to application 60/477,362 filed on 06/11/2003, which claims priority to French patent application 0303000 filed on 03/11/2003 is acknowledged.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Response to Applicant's Arguments

The rejection of claims 1, 4-9, 14-23, and 28-32 under 35 U.S.C. 103(a) as being unpatentable over Dupuis et al (US Patent Application 2004/0161387 A1, Published 08/19/2004) in view of Ashton et al (US Patent 6350433 B1, Published 02/26/2002) is withdrawn in view of Applicant's perfection of priority to 03/11/2003 and the conspicuous statement establishing common ownership of US Patent Application 2004/0161387 A1.

This is a new ground of rejection.

Claims 1, 14-23, 28 and 30-32 are rejected under 35 U.S.C. 103(a) as being obvious over Pataut et al. (International Application Published Under the PCT WO 02/051364, Published 07/04/2002) in view of Ashton et al (US Patent 6350433 B1, Published 02/26/2002).

The claims are directed to a composition comprising polyurethane of dimethylolpropionic acid/isophorone diisocyanate/neopentylglycol/polyesterdiols/silicone diamine copolymer, water, one organic solvent, and propellant comprising dimethyl ether and n-butane. The claims are further directed to the polyurethane being present in the composition in an amount of ranging from 2 to 12% by weight. The claims are further directed the amount of propellant being present in the composition in an amount of ranging from 20% to 70% by weight. The claims are further directed the amount of diemthyl ether being present in the composition in an amount of ranging from 10% to 50% by weight. The claims are further directed the amount of n-butane being present in the composition in an amount of ranging from 5% to 20% by weight. The claims are further directed to the organic solvent being ethanol. The claims are further directed to the composition further comprising at least one adjuvant such as a non-polyurethane fixing polymer. The claims are further directed to the method shaping or holding a hairstyle comprising providing an aerosol device comprising the composition and applying the contents of the aerosol device onto the hair in an amount sufficient to hold or shape a desired hairstyle.

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Pataut et al. teach an aerosol device comprising a composition comprising a polyurethane and/or polyurea unit, which is to be applied to the hair as an aerosol spray or lacquer for hair styling or hair setting (abstract- reads on the limitations of instant claims 30 and 32). A preferred composition comprises 5% Luviset Si Pur (dimethylolpropionic acid/isophorone diisocyanate/neopentylglycol/polyesterdiols/silicone diamine copolymer -which reads on instant claims 14 and 15), 1% Luviskol Plus (which reads on instant claim 28), 14% demineralized water, 35% ethanol (which reads on instant claims 21-23), and 45% dimethyl ether (which reads on instant claim 16) (page 13, lines 1-14).

Pataut et al. lacks a teaching wherein the composition comprises n-butane.

Ashton et al. teaches an autophobic hair spray composition comprising film forming resin such as carboxylated polyurethanes, propellant, and autophobic hair spray additive (title and column 2, Lines 64-65). "The hairspray resin employed in the composition of the present invention should be capable of forming a film and holding the hair of the user in place ..." (column 2, Lines 15-17). "Compositions of the present invention include water. Typical water levels for an ethanol-based aerosol fixing spray are from 2 to 10%, usually about 2 to 6% by weight." (column 6, Lines 30-32). Ashton et al. further teaches that propellant is a mixed propellant of dimethyl ether and hydrocarbone selected from isobutane, n-butane, propane, and mixtures. (column 3, Lines 64-67 and column 4, Lines 1-2). "The amount of propellant will range 3 to 50%, preferably from 5 to 45%, optimally from 25 to 45% by weight total composition. Weight ratio of total hydrocarbon to dialkyl ether will range from 5:1 to 1:10, preferably from 2:1

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to 1:5, more preferably from 1:1 to 1:4, optimally about 1:2 by weight.” (column 4, Lines 9-11).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the instant invention to use both dimethyl ether and n-butane as the hair spray propellant and have a reasonable expectation of success. One would be motivated to do so since Ashton et al. teach that one could use a mixture of propellants in hair spray compositions. One would have also arrived at the instantly claimed amounts of each of n-butane and diemthyl ether, following the guidance of Ashton et al. The optimal ratio of hydrocarbon (n-butane) to dialkyl ether is 1:2. Since Pataut et al. teach a total of 45% propellant, the mixture of propellants would result in a 15% n-butane and 30% diemthyl ether (which reads on instant claims 17-20). Therefore, the claims are rendered obvious by the teachings of the prior art.

This is a new ground of rejection.

Claims 4-9 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pataut et al. (International Application Published Under the PCT WO 02/051364, Published 07/04/2002) in view of Ashton et al (US Patent 6350433 B1, Published 02/26/2002) as applied to claims 1, 14-23, 28 and 30-32 above, and further in view of Sturla et al. (US Patent Application 2001/00511535 A1, Published 12/13/2001).

The claims are further directed to the composition comprising at least one polyurethane comprising at least one base repeating unit corresponding to the formula

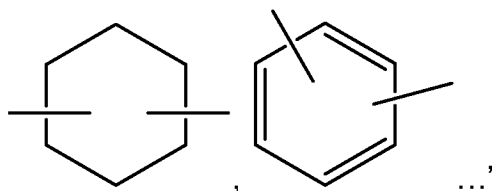
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(I) : $-X'-B-X'-CO-NH-R-NH-CO-$. The claims are further directed to the adjuvant is the vitamin and provitamin panthenol.

The teachings of Pataut et al. and Ashton et al. are discussed above.

Patuat et al. lacks a teaching wherein the composition further comprises a polyurethane comprising at least one base repeating unit corresponding to the formula (I) : $-X'-B-X'-CO-NH-R-NH-CO-$. Patuat et al. further lacks a teaching wherein the adjuvant is panthenol.

Sturla et al. teaches aerosol device comprising a polyurethane and/or polyurea multiblock polymer in cosmetically acceptable medium for shaping or maintaining a hairstyle. (abstract). "The polyurethane and/or polyurea compounds of the polymer can having repeating base unit corresponding to the general formula (I): $-X-B-X-CO-NH-R-NH-CO-$ in which: X represents O and/or NH, B is a divalent ... radical chosen from aromatic alkylene radicals, and C_1 to C_{20} aliphatic radicals, and C_1 to C_{20} cycloaliphatic radicals. In certain embodiments, radical B is a C_1 to C_{30} radicals ..." (paragraph 0031 – 0036 –which reads on instant claims 4 and 5). "The radical R can be chosen from the



radicals corresponding to the following formulae:

(paragraph 0037- which reads on instant claims 6 and 7). "In certain embodiments, radical R is chosen from hexamethylene, 4,4'-biphenylenemethane, 2,4- and/or 2,6-tolylene, 1,5-naphthylene, p-phenylene and methylene-4,4-bis-cyclohexyl radicals, and the divalent radicals derived from isophorone." (paragraph 0039 –which reads on instant

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claim 9). In certain embodiments, radical B is a C₁ to C₃₀ radicals (paragraph 0036- which reads on instant claim 8). The composition can further comprise additional cosmetic additives such as vitamins such as pantothenol (paragraph 0067 –which reads on instant claim 29).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the instant invention to combine the compositions of Pataut et al. and Sturla et al. have a reasonable expectation of success. One would have been motivated to do since it has been held that "[i]t is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). Both Pataut et al and Sturla et al. are directed aerosol compositions for hair setting, therefore their combination flows logically from their having been individually taught in the prior art. Therefore, the instant claims are rendered obvious by the teachings of the prior art.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALI SOROUSH whose telephone number is (571)272-9925. The examiner can normally be reached on M-F (9am-6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fereydoun G. Sajjadi can be reached on (571)272-3311. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ALI SOROUGH/
Examiner, Art Unit 1617

March 11, 2012